Amendments to the Specification

Please replace the third paragraph of page 16 (from lines 16 to 29) with the following amended paragraph:

Figure 1, part A illustrates an extraction device **1** consists essentially of an extraction phase **4** coated on a fibre or wire **2** to be used with a positioning device to accurately locate the device in a tissue. The entire device is sterilizable by one or more of the conventional means of sterilization, such as autoclave, ethylene oxide, UV or gamma irradiation. The uncoated end of the wire may or may not include a handle **8** to facilitate positioning of the device. The length of the wire is variable ~~7~~ depending on the application requirements. The extraction phase **4** could be a polymeric layer prepared on the wire surface, particulate adsorptive or absorptive material glued or otherwise affixed to the wire surface, or immobilized biorecognition agents such as antibodies nucleotides or protein receptors. When constructed of the stainless steel wire described below the extraction device is quite flexible. It will follow curves in a vein or catheter and normally resume a straight configuration when removed. The device is useful for the application of monitoring concentrations of drugs and their metabolites in blood or other tissues, either in single point monitoring or in multiple point (time course) monitoring.

Please replace the paragraph starting on page 19 (at line 30) and ending on page 20 (at line 8) with the following amended paragraph:

Figure 8 shows the catheter with the hollow fibre **38** coated on the inside wall surface at the lower portion **70** of the fibre. The schematic cross sectional view shows the two layer coating **66** ~~ad~~ and **64** on the inner fibre surface **62**. The outer coating **66** is chosen to be biocompatible to eliminate absorption of proteins, while the inner coating **64** is the extraction phase facilitating removal of well defined components from sample introduced to the inner fibre *via* channel **68**. The sample is drawn into the hollow fibre by using the device **72** generating pressure differential, such as syringe or metering pump connected to the hollow fibre. The action of drawing and ejecting sample produces agitation and therefore accelerate the extraction rate. The tubing is mounted in catheter, but can also be mounted in a positioning device illustrated in **Figure 7**.

Please replace the third paragraph on page 23 (lines 11 to 14) with the following amended paragraph:

Biorecognition in the extraction phase may be accomplished by entrapment of antibodies or another molecules capable of biorecognition in an inert biocompatible extraction phase. This is demonstrated ~~thie in~~ by the use of polypyrrole to entrap antibodies specific for diazepam.